

CLAIMS

1. (Currently Amended) A scanning method, suitable for use in a scanner having an optical sensing device, wherein the scanner scans a document to be scanned step by step by an N number of scanning lines, so that induced charges with respect to each of the scanning lines are produced on the optical sensing device, the scanning method comprising:

Setting the optical sensing device to have a front pixel region, an effective pixel region that is used for fetching an image of the document to be scanned, and a post pixel region, according to a width of the document to be scanned;

producing induced charges in an optical sensing device when scanning at least a first portion of a document, the optical sensing device having a front region, an effective region that corresponds to the scanned document, and a post region with respect to an nth scanning line, in which a quantity of n is equal to or greater than 1;

fetching out all of the induced charges belonging corresponding to the front pixel region and the induced charges belonging to the effective pixel region for the first portion of the document; with respect to the nth scanning line, and

transferring the induced charges belonging corresponding to the post pixel region produced when scanning the first portion of the document with respect to the nth scanning line to the front pixel region for use when scanning a second portion of the document, so as to be added with the induced charges belonging to the front pixel region with respect to the (n+1)th scanning line; and

processing the induced charges belonging corresponding to the effective pixel region with respect to the nth scanning line to form at least a piece of the an image associated with the document, which is then stored; and

judging whether or not the quantity of the parameter n is equal to N, wherein if it is, then all of the pieces of the image are collected to form a full image with respect to the document to be scanned, and if it is not, then the parameter n is added by 1, and then the (n+1)th scanning line is continuously scanned.

2. (Currently Amended) The scanning method as recited in claim 1, wherein the front pixel region and the post pixel region are located at two sides of the effective pixel region, as well as the front pixel region and the post pixel region have the same number of pixels.

3. (Currently Amended) The scanning method as recited in claim 1, wherein the optical sensing device comprises an optical charge coupled device (CCD).

Claims 4. - 9. (Cancelled)

10. (New) The method of claim 1, further comprising sequentially reading the induced charges corresponding to the front region and the effective region without reading induced charges corresponding to the post region.

11. (New) The method of claim 1, wherein processing the induced charges corresponding to the effective region to form at least the piece of the image associated

with the document further comprising discarding the induced charges associated with the front region of the optical sensing device.

12. (New) The method of claim 1, further comprising adding the data transferred from the post region to data generated by the front region in the scan of the second portion of the document.

13. (New) The method of claim 1, further comprising:
determining at least another portion of the document is to be scanned; and
scanning another portion of the document to determine at least another piece of the image associated with the document.

14. (New) The method of claim 13, further comprising generating the image associated with the document from pieces of the image formed from the processing of the induced charges.

15. (New) A method comprising:
detecting light with the sensing device when scanning at least a first portion of a document, the sensing device having an effective region that corresponds to at least a portion of the scanned document, and one or more non-document regions;
reading data corresponding to the light detected in the effective region of the sensing device without reading at least some data corresponding to light detected in at least one non-document region of the sensing device; and

generating a scanned image associated with the document, at least in part, from the data corresponding to the effective region of the sensing device.

16. (New) The method of claim 15, wherein defining one or more non-document regions in the sensing device further comprises:

defining a front region in the sensing device according to a width of the document to be scanned; and

defining a post region in the sensing device according to the width of the document to be scanned, where the front region and the post region are adjacent to the effective region.

17. (New) The method of claim 16, further comprising sequentially reading data corresponding to the light detected in the front region and the effective region without reading data corresponding to light detected in the post region.

18. (New) The method of claim 16, wherein generating a scanned image associated with the document further comprising:

discarding the data associated with the front region of the sensing device; and processing the data associated with the effective region of the sensing device to generate the scanned image.

19. (New) The method of claim 16, further comprises associating at least some data from a scan of the first portion of the document to data from to a scan of a second portion of the document.

20. (New) The method of claim 19, wherein associating at least some data from to the scan of the first portion of the document to data from to the scan of the second portion of the document further comprises transferring the data from to the scan of the first portion of the document corresponding to the post region to the front region of the sensing device for use during the scan of the second portion of the document.

21. (New) The method of claim 20, further comprising adding the data transferred from the post region to data generated by the front region in the scan of the second portion of the document.

22. (New) A device comprising:
a sensing device configured to detect light when at least a portion of a document is scanned, the sensing device including an effective region and one or more non-document regions; and
a control unit configured to read data corresponding to the light detected in the front region and the effective region without reading data corresponding to light detected in the post region, and generate at least a portion of a scanned image associated with the document from the data corresponding to light detected in the effective region.

23. (New) The device of claim 22 wherein the one or more non-document regions further comprise a front region and a post region defined according to the width of the document to be scanned.

24. (New) The device of claim 23, wherein the control unit is operable to discard the data associated with the front region of the sensing device, and process the data associated with the effective region of the sensing device to generate the scanned image.

25. (New) The device of claim 23, wherein the control unit is operable to transfer the data from the scan of a first portion of the document corresponding to the post region to the front region of the sensing device for use during the scan of a second portion of the document.

26. (New) The device of claim 25, wherein the control unit is operable to add the data transferred from the post region to data generated by the front region in the scan of the second portion of the document.